

NAME = S.H.R.Akarsha

ID = 24549

C# LAB 01

1.

using System;

namespace NameAndBatchConsoleApp

{

class Program

{

static void Main (string [] args)

{

Console.WriteLine("Welcome to the Name and Batch Console App!");

// Read name from the user

Console.Write("Please enter your name: ");

string name = Console.ReadLine();

// Read batch from the user

Console.Write("Please enter your batch: ");

string batch = Console.ReadLine();

// Print the name and batch on the console

Console.WriteLine("Your name is: " + name);

Console.WriteLine("Your batch is: " + batch);

Console.WriteLine("Press any key to exit...");

Console.ReadKey();

}

}

}

2. using System;

namespace CircleAreaConsoleApp

{

class Program

{

static void Main (string [] args)

```

{
    Console.WriteLine("Welcome to the Circle Area Calculator!");

    // Read the radius from the user
    Console.Write("Please enter the radius of the circle: ");
    string input = Console.ReadLine();

    // Parse the input string to get the radius as a double
    if (double.TryParse(input, out double radius))
    {

        // Calculate the area of the circle
        double area = CalculateCircleArea(radius);

        // Print the result
        Console.WriteLine($"The area of the circle with radius {radius} is: {area}");
    }
    else
    {
        Console.WriteLine("Invalid input. Please enter a valid number for the radius.");
    }

    Console.WriteLine("Press any key to exit...");
    Console.ReadKey();
}

static double CalculateCircleArea(double radius)
{
    // Area of a circle =  $\pi * r^2$ 
    return Math.PI * radius * radius;
}
}

```

3.

```

namespace SummationConsoleApp
{
    class Program
    {
        static void Main (string [] args)
        {
            Console.WriteLine("Welcome to the Summation Calculator!");

```

```

// Read the first input from the user
Console.Write("Please enter the first number: ");
string input1 = Console.ReadLine();

// Read the second input from the user
Console.Write("Please enter the second number: ");
string input2 = Console.ReadLine();

// Parse the input strings to get the numbers as doubles
if (double.TryParse(input1, out double number1) && double.TryParse(input2, out double
number2))
{
    // Calculate the sum of the inputs
    double sum = number1 + number2;

    // Print the result
    Console.WriteLine($"The sum of {number1} and {number2} is: {sum}");
}
else
{
    Console.WriteLine("Invalid input. Please enter valid numbers.");
}

Console.WriteLine("Press any key to exit...");
Console.ReadKey();
}
}
}

```

4.

```

namespace SalaryAfterTaxConsoleApp
{
    class Program
    {
        static void Main (string [] args)
        {
            Console.WriteLine("Welcome to the Salary After Tax Calculator!");

            // Read the salary from the user
            Console.Write("Please enter the salary of the employee: ");
            string salaryInput = Console.ReadLine();

```

```

// Read the tax rate from the user
Console.Write("Please enter the tax rate (in decimal form, e.g., 0.15 for 15%): ");
string taxRateInput = Console.ReadLine();

// Parse the input strings to get the salary and tax rate as doubles
if (double.TryParse(salaryInput, out double salary) && double.TryParse(taxRateInput, out
double taxRate))
{
    // Calculate the salary after deducting tax
    double salaryAfterTax = CalculateSalaryAfterTax(salary, taxRate);

    // Print the result
    Console.WriteLine($"The salary after tax is: {salaryAfterTax:C}");
}
else
{
    Console.WriteLine("Invalid input. Please enter valid numbers.");
}

Console.WriteLine("Press any key to exit...");
Console.ReadKey();
}

static double CalculateSalaryAfterTax(double salary, double taxRate)
{
    // Calculate the tax amount
    double taxAmount = salary * taxRate;

    // Calculate the salary after deducting tax
    double salaryAfterTax = salary - taxAmount;

    return salaryAfterTax;
}
}
}

```